

Serial Number: 10/010,667A

CRF Processing Date:

Edited by:

Verified by:

(STIC staff)

ENTERED

 Changed a file from non-ASCII to ASCII Changed the margins in cases where the sequence text was wrapped down to the next line. Edited a format error in the Current Application Data section, specifically: Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____. Added the mandatory heading and subheadings for "Current Application Data". Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically: Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included: Deleted extra, invalid, headings used by an applicant, specifically: Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____. Inserted mandatory headings, specifically: Corrected an obvious error in the response, specifically: Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically: A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted. Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length" field accordingly (error due to a PatentIn bug). Sequences corrected: Other:

*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.



O I P E

RAW SEQUENCE LISTING DATE: 06/17/2002
PATENT APPLICATION: US/10/010,667A TIME: 19:48:45

Input Set : N:\jumbos\010667A.txt
Output Set: N:\CRF3\06172002\J010667A.raw

4 <110> APPLICANT: Afar, Daniel
5 Hubert, Rene S.
6 Leong, Kahan
7 Raitano, Arthur B.
8 Saffran, Douglas C.
9 Mitchell, Steve Chappell
11 <120> TITLE OF INVENTION: NOVEL SERPENTINE TRANSMEMBRANE ANTIGENS
12 EXPRESSED IN HUMAN CANCERS AND USES THEREOF
15 <130> FILE REFERENCE: 511582001601
17 <140> CURRENT APPLICATION NUMBER: US 10/010,667A
18 <141> CURRENT FILING DATE: 2001-12-06
20 <150> PRIOR APPLICATION NUMBER: 09/323,873
21 <151> PRIOR FILING DATE: 1999-06-01
23 <150> PRIOR APPLICATION NUMBER: 60/087,520
24 <151> PRIOR FILING DATE: 1998-06-01
26 <150> PRIOR APPLICATION NUMBER: 60/091,183
27 <151> PRIOR FILING DATE: 1998-06-30
29 <160> NUMBER OF SEQ ID NOS: 32
31 <170> SOFTWARE: FastSEQ for Windows Version 4.0
33 <210> SEQ ID NO: 1
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35 <212> TYPE: DNA
36 <213> ORGANISM: Homo Sapiens
38 <400> SEQUENCE: 1
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41 ggagaaaattt agaagaagac gattatttgc ataaggacac gggagagacc agcatgctaa 180
42 aaagacctgt gctttgcatttgcacccatgc tgatgaattt gactgccctt 240
43 cagaacttca gcacacacacag gaactcttc cacagtggca cttgccaattt aaaatagctg 300
44 ctattatagc atctctgact tttctttaca ctcttcttag ggaagtaattt caccctttag 360
45 caacttccca tcaacaatat tttataaaaa ttccaatcctt ggtcatcaac aaagtcttgc 420
46 caatggtttc catcaacttc ttggcattgg tttacctgc aggtgtgata gcagcaattt 480
47 tccaaacttca taatggaaacc aagtataaga agttccaca ttgggtggat aagtggatgt 540
48 taacaagaaaa gcagtttggg cttctcagtt tctttttgc tgtaactgcattt gcaatttata 600
49 gtctgtctta cccaatgagg cgatcctaca gatacaagtt gctaaactgg gcatatcaac 660
50 aggtccaaca aaataaaagaa gatgcctggat ttgagcatga tgtttggaga atggagattt 720
51 atgtgtctctt gggaaatttgc ggattggcaa tactggctctt gttggctgtt acatcttattt 780
52 catctgttag tgactctttg acatggagag aatttcacta tattcagagc aagctaggaa 840
53 ttgtttccct tctactgggc acaatacacg cattgattttt tgcctggat aagtggatgt 900
54 atataaaaaca atttgtatgg tatacacctc caactttat gatagctgtt ttcccttccaa 960
55 ttgttgtcctt gatatttaaa agcatactat tcctgcccattt cttgaggaag aagatactga 1020
56 agatttagaca tgggtggaa gacgtcacca aaattaacaa aactgagata tggcccttccat 1080
57 tqtagaattt ctgtttacac acattttgc tcaatattga tatattttat caccacattt 1140

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 68 Lys Pro Arg Arg Asn Leu Glu Glu Asp Asp Tyr Leu His Lys Asp Thr
 69 20 25 30
 70 Gly Glu Thr Ser Met Leu Lys Arg Pro Val Leu Leu His Leu His Gln
 71 35 40 45
 72 Thr Ala His Ala Asp Glu Phe Asp Cys Pro Ser Glu Leu Gln His Thr
 73 50 55 60
 74 Gln Glu Leu Phe Pro Gln Trp His Leu Pro Ile Lys Ile Ala Ala Ile
 75 65 70 75 80
 76 Ile Ala Ser Leu Thr Phe Leu Tyr Thr Leu Leu Arg Glu Val Ile His
 77 85 90 95
 78 Pro Leu Ala Thr Ser His Gln Gln Tyr Phe Tyr Lys Ile Pro Ile Leu
 79 100 105 110
 80 Val Ile Asn Lys Val Leu Pro Met Val Ser Ile Thr Leu Leu Ala Leu
 81 115 120 125
 82 Val Tyr Leu Pro Gly Val Ile Ala Ala Ile Val Gln Leu His Asn Gly
 83 130 135 140
 84 Thr Lys Tyr Lys Lys Phe Pro His Trp Leu Asp Lys Trp Met Leu Thr
 85 145 150 155 160
 86 Arg Lys Gln Phe Gly Leu Leu Ser Phe Phe Ala Val Leu His Ala
 87 165 170 175
 88 Ile Tyr Ser Leu Ser Tyr Pro Met Arg Arg Ser Tyr Arg Tyr Lys Leu
 89 180 185 190
 90 Leu Asn Trp Ala Tyr Gln Gln Val Gln Gln Asn Lys Glu Asp Ala Trp
 91 195 200 205
 92 Ile Glu His Asp Val Trp Arg Met Glu Ile Tyr Val Ser Leu Gly Ile
 93 210 215 220
 94 Val Gly Leu Ala Ile Leu Ala Leu Leu Ala Val Thr Ser Ile Pro Ser
 95 225 230 235 240
 96 Val Ser Asp Ser Leu Thr Trp Arg Glu Phe His Tyr Ile Gln Ser Lys
 97 245 250 255
 98 Leu Gly Ile Val Ser Leu Leu Leu Gly Thr Ile His Ala Leu Ile Phe
 99 260 265 270
 100 Ala Trp Asn Lys Trp Ile Asp Ile Lys Gln Phe Val Trp Tyr Thr Pro
 101 275 280 285
 102 Pro Thr Phe Met Ile Ala Val Phe Leu Pro Ile Val Val Leu Ile Phe
 103 290 295 300
 104 Lys Ser Ile Leu Phe Leu Pro Cys Leu Arg Lys Lys Ile Leu Lys Ile
 105 305 310 315 320
 106 Arg His Gly Trp Glu Asp Val Thr Lys Ile Asn Lys Thr Glu Ile Cys
 107 325 330 335
 108 Ser Gln Leu

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Input Set : N:\jumbos\010667A.txt
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171	tgacAGTTgt	gagccaccac	actcAGCCTG	ctctttctaa	tatttGAAAC	ttgttagaca	1440
172	atttGctacc	catctaATgt	gatattttAG	gaatCCAATA	tgcATGGTT	attatttctt	1500
173	aaaaaaaata	ttctttacc	tgtcacCTGA	attagtaat	gcctttatG	ttacacaact	1560
174	tagcaCTTC	cagaAACAAA	aactCTCTCC	ttGAAATAAT	agagTTTta	tctaccaAG	1620
175	atatGctAGt	gtctcatttC	aaaggGCTGt	ttttccagct	tacattttat	atacttaCTC	1680
176	acttGAAGTT	tctaaatatt	tttGtaattt	taaaactatC	tcagatttac	tgaggTTat	1740
177	cttctGGTgg	tagattatCC	ataAGAAGAG	tgatGtGCCA	gaatcacttC	gggatCCTTg	1800
178	tctgacaAGA	ttcaaAGGAC	taaatttaat	tcagtcatGA	acactGcAA	ttaccGTTA	1860
179	tgggtAGACA	tcttggAAA	tttccacaAG	gtcagacatt	cgcaactatC	ccttctacat	1920
180	gtccCACACGT	atactCCAAC	acttttattAG	gcatctGATT	agtttggAAA	gtatGCCtCC	1980
181	atctGAATTtA	gtccAGTGTG	gcttagAGTT	ggtacaACAT	tctcacAGAA	tttCTtaatt	2040
182	tttGtagGTTc	agcctgataA	ccactGGAGT	tcttGGTCC	tcattaaATA	gctttcttCA	2100
183	cacattGCTC	tgcctGTTAC	acatATGATG	aacaCTGCTT	tttagacttC	attAGGAATT	2160
184	taggACTGCA	tcttgacaAC	tgAGCCTATT	ctactatATG	tacaataACt	agccataAT	2220
185	aggtataCAA	tacacATTG	gtAAAactAA	ttttcaACCA	atgacatGtA	ttttcaACT	2280
186	agtaACCTAG	aaatGTTCA	cttAAAATCT	gagaACTGGT	tacactacaA	gttacCTTGG	2340
187	agattcataT	atgAAAACGc	aaacttagt	atttGATTGt	attcactGGG	acttaAGAAT	2400
188	gcgcCCTGAAT	aattGtgAGT	tcgatttttt	ctggcaggCT	aatgaccatt	tccagtaAAG	2460
189	tgaatAGAGG	tcagaAGTCG	tataAAAGAG	gtgttGTCAG	aacaccGTT	agattacATA	2520
190	ggtGAACAAC	tatttttaAG	caactttt	tgtgtAGtGA	caaAGcatCC	caatGcAGGC	2580
191	tgaaatGTTT	catcacatCT	ctggatCTCT	ctattttGTG	cagacattGA	aaaaattGTT	2640
192	catatttattt	ccatGTTATC	agaatatttG	atTTTTAA	aacatAGGCC	aaggTCattC	2700
193	acttcattat	tcatttatCA	aaatCAGATG	gaatCACATT	agtcGCCtC	acaactGATA	2760
194	aagatCAtG	aagtAAAATT	gattttGCT	ataatCTtCA	atctacCTt	atTTAATTGA	2820
195	gaatctAAA	tgtacAAATC	atttGtGtGA	ttctGcAGTG	atcctGCTAT	aagtaAGACT	2880
196	cagtCCCTGA	ttttaggtat	ctctGtAAA	gcagaattAA	gacaAAatACA	caAGAGACAA	2940
197	agcacaAAA	ataAAatATCA	taAGGGGATG	aacAAAATGG	tggagAAAGA	gtAGACAAAG	3000
198	tttttGATCA	cctgocTTCA	agaAAAGGt	gtGAATTtG	ttcacttGA	cAGCTTGGAG	3060
199	acaAGAAATT	acccAAAAGT	aaggTgAGGA	ggatAGGCA	aaAGAGCAGA	aAGATGtGAA	3120
200	tggacATTGt	tgAGAAATGT	gatAGGAAA	caatCATAGA	taaaggattt	ccaAGCAACA	3180
201	gagcatATCC	agatGAGGT	ggatGGGATA	aacttCTT	gaaccaATCT	tcaccaATT	3240
202	tgttttCTT	ttGcAGAGCA	agCTAGGAAT	tgtttCCtT	ctactGGC	caataCACACGc	3300
203	attgatTTT	gcctGGAATA	agtGGATAGA	tataAAACAA	tttGtATGtG	atACACCTCC	3360
204	aactttatG	atAGtGTTT	tccttCCAA	tgttGtCCTG	atatttAA	gcataCTATT	3420
205	cctGCCatGC	ttGAGGAAGA	agataCTGAA	gattAGACAT	ggttGGGAAG	acGTCACCAA	3480
206	aattaACAA	actGAGATAT	gttcccAGTT	gtAGAAATTAC	tgtttacaca	cattttGTT	3540
207	caatattGAT	atatttATC	accaACATT	caAGTTGtA	tttGttaATA	aaatGATTAT	3600
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218	accaAGTATA	ggagatttCC	accttGGtG	gaaACCTGtG	tacAGTGTAG	aaaACAGCTT	180
219	ggattactAA	gtttttCTT	cgctatGGtC	catGTTGCT	acagcCTCTG	cttaccGATG	240

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221	gaaaactctt	ggaatgagga	agaagttgg	agaattgaaa	tgtatatctc	cttggcata	360
222	atgagccttg	gcttacttgc	cctcctggca	gtcacttcta	tcccttcagt	gagcaatgct	420
223	ttaaactgga	gagaattcag	ttttattcag	tctacacttg	gatatgtcgc	tctgctcata	480
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235					Leu	Val	Tyr
236	Ala	Ala	Tyr	Gln	Leu	Tyr	Tyr
237						Gly	Thr
238	Trp	Leu	Glu	Thr	Trp	Leu	Gln
239						Cys	Arg
240	Phe	Phe	Phe	Ala	Met	Val	His
241						Val	Ala
242	Arg	Arg	Arg	Ser	Glu	Arg	Tyr
243						Leu	Phe
244	His	Ala	Asn	Ile	Glu	Asn	Ser
245						Trp	Asn
246	Glu	Met	Tyr	Ile	Ser	Phe	Gly
247						Ile	Met
248	Leu	Ala	Val	Thr	Ser	Ile	Pro
249						Pro	Ser
250	Glu	Phe	Ser	Phe	Ile	Gln	Ser
251						Thr	Leu
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253						Tyr	Tyr
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262	cagagtgact	tttacaaaat	tcctatagag	attgtgaata	aaaccttacc	tatagttgcc	120
263	attactttgc	tctccctagt	ataccttgca	ggtcttctgg	cagctgctta	tcaactttat	180
264	tacggcacca	agtataaggag	atttccacct	tggttggaaa	cctggttaca	gtgtagaaaa	240
265	cagttggat	tactaagttg	tttcttcgct	atggtccatg	ttgcctacag	cctctgctta	300
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 06/17/2002
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Input Set : N:\jumbos\010667A.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:12; N Pos. 11,56,233,250,310,326,377,398